

Syllabus BIMM194: "The Gambling Cell"
Wednesdays, 10-11:30 am, York 3010
Professor: Gurol Suel, Pacific Hall Room 2225
Office Hours: email gsuel@ucsd.edu to set up a time

Oct 2	Introduction to randomness in biology
Oct 9	Randomness at the single molecule level
Oct 16	Randomness at the single cell level
Oct 23	Randomness at the community level
Oct 30	Biological benefits of randomness
Nov 6	Case studies: Role of randomness in microbial differentiation
Nov 13	Case studies: Role of randomness microbial drug resistance
Nov 20	Role of randomness in eukaryotic multicellular development
Nov 27	Role of randomness in mammalian cells
Dec 4	Role of randomness in evolution

Note: Specific research papers for case studies will be assigned one week prior to lecture.

Questions we will pursue:

- What is randomness in biology?
- How does randomness arise?
- What is the biological role of randomness?

Grading:

- 20%: attendance
- 50%: participation (includes asking questions if you do not understand the material)
- 30%: final: prepare one presentation as a small group (three students per group)

Final: December 13, 8-10:59 am